City of Kamiah (Surface Water) PWS# 2310003
SOURCE WATER ASSESSMENT REPORT

Final Report
January 22, 2001

State of Idaho
Department of Environmental Quality

Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the watershed characteristics.

This report, *Source Water Assessment for City of Kamiah, Idaho*, describes the public drinking water system, the zone boundary of water contribution, and the associated potential contaminant sources located within this boundary. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

The City of kamiah drinking water system consists of one intake on the Clearwater River situated up stream and adjacent of the water treatment plant, within Kamiah City limits. The single intake pipe extends into the center of the river and has no filtering system other than a perforated screen. An infiltration gallery pipeline once served as a second intake, but has been plugged for years and is not be considered active. The most recent testing of the City of Kamiah's treated water indicates that the system was free of coliform bacteria, volatile organic contaminants, and synthetic organic contaminants. Low-level inorganic contaminates have been detected but only at levels well below Maximum Contaminant Levels (MCLs).

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Regardless of the location of the source, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For the City of kamiah, source water protection activities should focus on implementation of practices aimed at reducing the potential effects of accidental contaminant spills into the Clearwater River or its tributaries upstream of the intake within the designated source water area. The most obvious threat to the City of Kamiah's drinking water intake is spills of a variety of contaminants, including hazardous materials, being transported along Highway 12, particularly within a short distance upstream of the intake. Most of the designated areas are outside the direct jurisdiction of City of Kamiah. Partnerships with state and local agencies and industry groups should be established and are critical to success. Due to the short time associated with the movement of surface water in the Clearwater River, source water protection activities should be aimed at short-term management and spill response strategies with the development of long-term management strategies to counter any future contamination threats. Source water protection activities should be coordinated with the Transportation Department, the upstream communities, the Idaho State Police, the U.S. Forest Service and other federal, state and local agencies.

While the Clearwater River possesses good quality and abundant yield, limitations and vulnerability related to the construction of the intake should be reviewed. An investigation of the feasibility of a shift to potential ground water sources to augment or replace the current surface water system could be considered.

A community with a fully developed source water protection program will incorporate many strategies. For assistance in developing protection strategies please contact the Lewiston Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR CITY OF KAMIAH, IDAHO

Section 1. Introduction - Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area, a map showing the entire watershed contributing to the delineated area, a map showing the twenty-four (24) hour emergency response delineation, and the inventory of significant potential sources of contamination identified within the delineated area are attached. The list of significant potential contaminant source categories and their rankings used to develop the assessment also is attached.

Background

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the intakes and watershed characteristics.

Level of Accuracy and Purpose of the Assessment

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (DEQ) recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. DEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Location

Kamiah, Idaho is a community of approximately 1,157 people, located 20 miles southeast and upstream of Orofino, Idaho along the South Fork of the Clearwater River. Kamiah is 60 miles southeast of Lewiston, Idaho (Figure 1). The public drinking water system for the City of Kamiah is comprised of one active surface water intake located on the Clearwater River within Kamiah's city limits.

Section 2. Conducting the Assessment

General Description of the Source Water Quality

The City of Kamiah derives its water from the Clearwater River and its drainage basin. The 4 hour or 25 mile time of travel zone for Kamiah includes 99,042 acres or about 155 square miles. The primary water quality issue currently facing the City of Kamiah is that of contamination caused by a potential contaminant spill into the Clearwater River or it's tributaries and the problems associated with managing this contamination. According to Idaho's State drinking water database, in recent years, the Kamiah surface water intake has not encountered water quality problems. However, because of the vulnerability of the shallow, poorly screened water intake, Kamiah's drinking water system is at high risk of contamination. The prospect of contamination caused by a potential contaminant spill into the Clearwater River or its tributaries is more pronounced due to the close proximity of Highway 12-- a major route for commercial traffic including tanker trucks.

Defining the Zones of Contribution - Delineation

To protect surface water systems from such potential contaminant pathways, the EPA required that the entire drainage basin be delineated upstream from the intake to the hydrologic boundary of the drainage basin (U.S. EPA, 1997b). The EPA recognized that an intake on a large water body could have an extensive drainage basin. Therefore, the EPA recommended that large drainage basins be segmented into smaller areas for the purpose of implementing a cost-effective potential contaminant inventory and susceptibility analysis. The delineation process established the physical area around an intake that became the focal point of the assessment. The process also included mapping the boundaries of the zone of contribution into a river buffer zone that extends from the intake upstream 25 miles, including tributaries. The delineated source water assessment area for the City of Kamiah can best be described as a buffered area, 500 feet on either side of the Clearwater River, extending upstream 25 miles, including stream reaches within the area. The delineated area consists of approximately 99,042 acres. The actual data used by DEQ in determining the source water assessment delineation is available upon request. This delineation is illustrated in Figure 2.

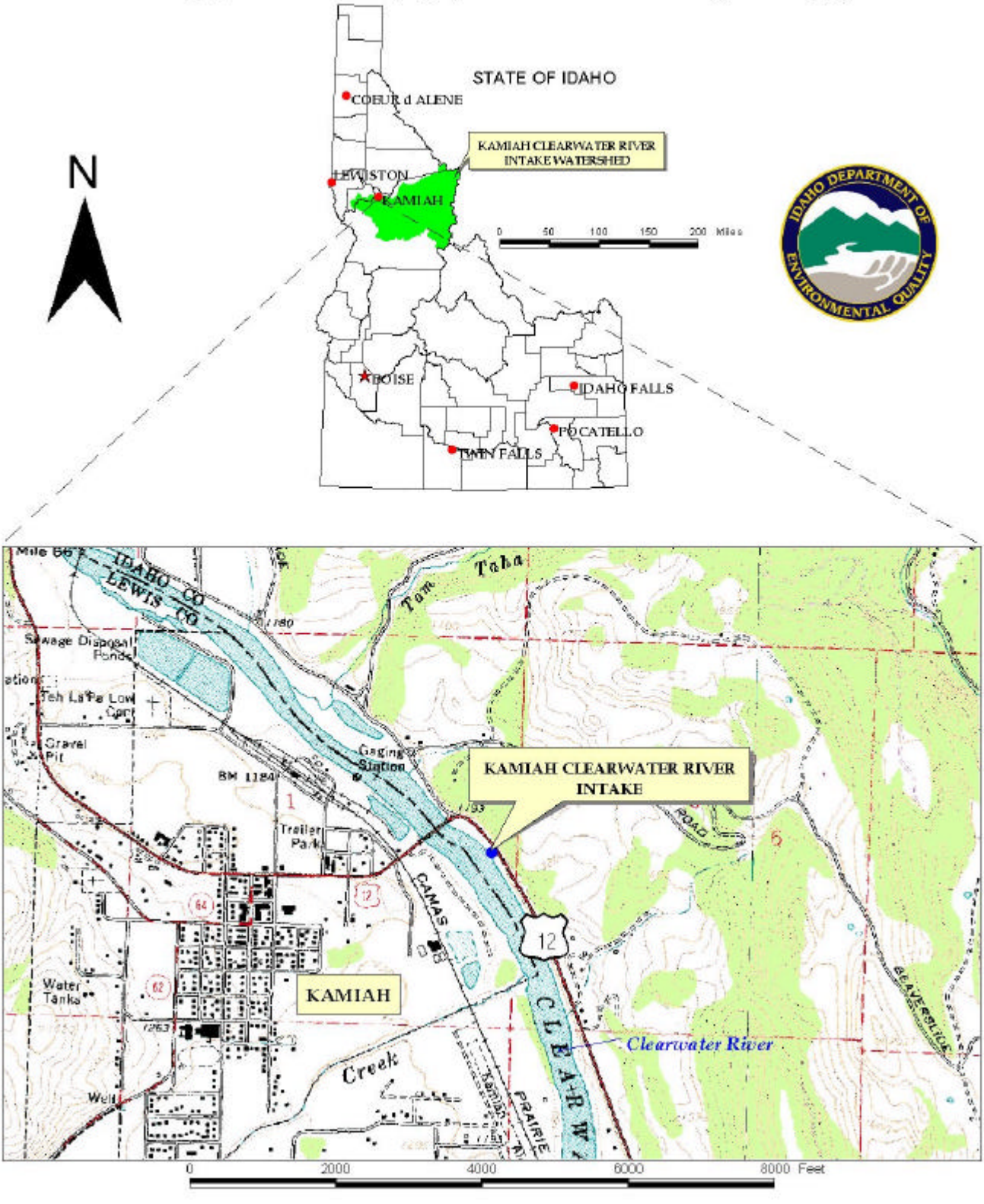
In addition to the source water delineation, DEQ has included a 24-hour emergency response delineation to facilitate emergency-response activities. If a potential contaminant spills directly into the Clearwater River or its tributaries, the drinking water utility needs appropriate notification in order to turn off the intake. For the City of Kamiah's Clearwater River intake, the upstream emergency-response distance was calculated from the 24-hour streamflow time-of-travel. This 24-hour streamflow was based on average seasonal flow rates. The 24-hour emergency-response delineation for the City of Kamiah is shown in Figures 3a and 3b, along with locations of highways, railroads, pipelines, or other facilities, which could pose a threat to the source water intake. The captured information has been included as part of the final assessment report.

Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of surface water contamination. The locations of potential sources of contamination within the delineation areas were obtained by local knowledge and from available databases.

The dominant land use outside the City of Kamiah is agricultural land, some forested land, rural residential homes, small businesses and recreation. Homes and businesses within Kamiah are connected to the City's wastewater treatment plant while homes and businesses outside the city limits but within the source water delineated area operate with individual septic systems.

FIGURE 1. Geographic Location & Topographic Watershed Delineation for the City of Kamiah



It is important to understand that a release may never occur from a potential source of contamination provided best management practices are used at the facility. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination, such as educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply intake.

Contaminant Source Inventory Process

A contaminant inventory was conducted for the City of Kamiah in August 2000. The process involved identifying and documenting potential contaminant sources within the Kamiah Source Water Assessment Area through the use of computer databases and Geographic Information System maps developed by DEQ. A map showing the delineated area with the potential contaminant sources is included (Figure 2).

A total of 98 potential contaminant sites are located within the delineated source water area (Table 1, Figure 2). Most of the potential contaminant sources within delineated source water areas are located beyond areas of immediate concern. However, potential contaminant sources located within the delineated source water area for Kamiah include an array of refueling stations, underground storage tanks, Resource Conservation Recovery Act (RCRA) sites, mine/prospect sites and a landfill.

Table 1. City of Kamiah Potential Contaminant Inventory

SITE #	Source Description[1]	Source of Information	Potential Contaminants[2]
1	UST- Cleaned up	Database Search	VOC, SOC
2	UST- Cleaned up	Database Search	VOC, SOC
3	UST- Cleaned up	Database Search	VOC, SOC
4	UST- Cleaned up	Database Search	VOC, SOC
5	UST- Auto Company	Database Search	VOC, SOC
6	UST-Wastewater Treatment	Database Search	VOC, SOC
7	UST- Closed ARNG	Database Search	VOC, SOC
8	UST- Gas Station	Database Search	VOC, SOC
9	UST- Utilities (Closed)	Database Search	VOC, SOC
10	UST- Commercial (closed)	Database Search	VOC, SOC
11	UST - Gas Station (Closed)	Database Search	VOC, SOC
12	UST- County (Closed)	Database Search	VOC, SOC
13	UST- Gas Station	Database Search	VOC, SOC
14	UST- Closed	Database Search	VOC, SOC
15	UST- Gas Station (Closed)	Database Search	VOC, SOC
16	UST- Gas Station	Database Search	VOC, SOC
17	UST- Gas Station (Closed)	Database Search	VOC, SOC

SITE #	Source Description[1]	Source of Information	Potential Contaminants[2]
18	UST- Gas Station	Database Search	VOC, SOC
19	Dairy	Database Search	IOC
20	Photo Finishing	Database Search	VOC, IOC, SOC
21	Hardware Store	Database Search	VOC, SOC
22	Contractor	Database Search	IOC
23	Auto Service	Database Search	VOC, SOC
24	Auto Parts	Database Search	VOC, SOC
25	Farm Equipment	Database Search	VOC, SOC
26	Auto Shop	Database Search	VOC, SOC
27	Recycling Center	Database Search	VOC, IOC, SOC
28	Print Shop	Database Search	IOC, VOC
29	Auto Repair	Database Search	VOC, SOC
30	Dental Lab	Database Search	IOC
31	Trucking Company	Database Search	VOC, SOC
32	Auto Dealer/Shop	Database Search	VOC, SOC
33	Fire Department	Database Search	VOC, SOC
34	Vet. Clinic	Database Search	IOC
35	Print Shop	Database Search	IOC, VOC
36	Machine Shop	Database Search	VOC, SOC
37	Auto Shop	Database Search	VOC, SOC
38	Hardware Shop	Database Search	VOC, SOC
39	RV Park	Database Search	VOC, SOC
40	Vet. Clinic	Database Search	IOC
41	Funeral Home	Database Search	IOC
42	Auto Shop	Database Search	VOC
43	Print Shop	Database Search	IOC, VOC
44	Leather Shop	Database Search	VOC
45	Auto Shop	Database Search	VOC, SOC
46	Print Shop	Database Search	IOC, VOC
47	Taxidermist	Database Search	IOC, VOC
48	Elec. Shop	Database Search	VOC, SOC
49	Construction Comp.	Database Search	VOC, SOC
50	Dry Cleaner	Database Search	VOC, SOC
51	Feed Dealer	Database Search	VOC, SOC
52	Auto Shop	Database Search	VOC, SOC
53	Fire Station	Database Search	VOC, SOC
54	Wastewater Disposal Site	Database Search	IOC, Microbes
55	Wastewater Disposal Site	Database Search	IOC, Microbes
56	Wastewater Disposal Site	Database Search	IOC, Microbes
57	Wastewater Disposal Site	Database Search	IOC, Microbes
58	Wastewater Disposal Site	Database Search	IOC, Microbes
59	Wastewater Disposal Site	Database Search	IOC, Microbes
60	Wastewater Disposal Site	Database Search	IOC, Microbes
61	Wastewater Disposal Site	Database Search	IOC, Microbes
62	Wastewater Disposal Site	Database Search	IOC, Microbes
63	Wastewater Disposal Site	Database Search	IOC, Microbes

SITE #	Source Description[1]	Source of Information	Potential Contaminants[2]
64	Wastewater Disposal Site	Database Search	IOC, Microbes
65	Wastewater Disposal Site	Database Search	IOC, Microbes
66	Wastewater Disposal Site	Database Search	IOC, Microbes
67	Wastewater Disposal Site	Database Search	IOC, Microbes
68	Wastewater Disposal Site	Database Search	IOC, Microbes
69	Wastewater Disposal Site	Database Search	IOC, Microbes
70	Wastewater Disposal Site	Database Search	IOC, Microbes
71	Wastewater Disposal Site	Database Search	IOC, Microbes
72	Wastewater Disposal Site	Database Search	IOC, Microbes
73	Gravel Pit	Database Search	IOC
74	Gravel Pit	Database Search	IOC
75	Gravel Pit	Database Search	IOC
76	Gravel Pit	Database Search	IOC
77	Gravel Pit	Database Search	IOC
78	Gravel Pit	Database Search	IOC
79	Gravel Pit	Database Search	IOC
80	Gravel Pit	Database Search	IOC
81	Gravel Pit	Database Search	IOC
82	Manganese Prospect	Database Search	IOC
83	Gravel Pit	Database Search	IOC
84	Gravel Pit	Database Search	IOC
85	Gravel Pit	Database Search	IOC
86	Gravel Pit	Database Search	IOC
87	Gravel Pit	Database Search	IOC
88	Gravel Pit	Database Search	IOC
89	Gravel Pit	Database Search	IOC
90	Copper Mine (Closed)	Database Search	IOC
91	Gravel Pit	Database Search	IOC
92	Gravel Pit	Database Search	IOC
93	Asbestos Prospect	Database Search	IOC
94	Copper Prospect	Database Search	IOC
95	Clay Prospect	Database Search	IOC
96	Asbestos Prospect	Database Search	IOC
97	SARA Site	Database Search	?
98	Landfill Transfer Sta.	Database Search	IOC, SOC,VOC

[1]UST = underground storage tank, SARA = Superfund Amendments and Reauthorization Act Tier II Facilities,

[2]IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

Section 3. Susceptibility Analysis

The susceptibility of the source at the intake was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity and construction of the intake, land use characteristic, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each intake is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking.

Intake Construction

The construction of the City of Kamiah public water system intake directly affects the ability of the intake to protect the source from contaminants. The City of Kamiah drinking water system consists of one intake on the Clearwater River immediately up stream of the water treatment plant and within Kamiah City limits. The intake system construction scored high risk because it is shallow and poorly screened. The lack of adequate filtering leaves the system immediately vulnerable to any contaminants that may be introduced to the Clearwater River (Table 2). The prospect of contamination caused by a potential contaminant spill into the Clearwater River is more pronounced due to the close proximity of Highway 12-- a major route for commercial traffic including tanker trucks.

Potential Contaminant Sources and Land Use

Although the City of Kamiah intake rated low susceptibility in terms of historic non-detections of inorganic contaminant (IOC), volatile organic contaminant (VOC), synthetic organic contaminant (SOC), and microbial contaminant, the system scored high risk for contamination due to the location of Highway 12 adjacent to the Clearwater River.

Final Susceptibility Ranking

Water quality tests have shown no past exceedances of IOC, SOC, VOC, total coliform bacteria, fecal coliform bacteria or *E-coli* bacteria above drinking water standard MCLs. Therefore, the system scores low in the contaminant inventory portion of scoring for susceptibility. However, the lack of adequate screening of the intake automatically gives the intake construction portion of susceptibility a high score despite the historic good water quality. The system is particularly vulnerable to potential spills into the Clearwater River from vehicular traffic along Highway 12.

Table 2. Summary of City of Kamiah Susceptibility Evaluation[1]

Intake	Contaminant Inventory				System Construction	**Final Susceptibility Ranking**			
	IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
1	L	L	L	L	H	L (H*[2])	L (H*)	L (H*)	L (H*)

[1]H = High Susceptibility, M = Moderate Susceptibility, L = Low Susceptibility
H[2]* - Indicates source automatically scored as high susceptibility due to presence of a potential contaminant source (Highway 12) above the surface water.

Susceptibility Summary

It can be seen from Table 2 that the City of Kamiah public water system rated in the low category for historic IOCs, VOCs, SOCs, and microbial contamination. However, in terms of the total future susceptibility the system is vulnerable to accidental spills of a variety of contaminants, including hazardous materials, being transported along Highway 12, particularly within a short distance upstream of the intake. The system's vulnerability is further enhanced due to the position of the intake at water level on the Clearwater River with no filtering system present. For these reasons, the system's final susceptibility rating scored high in all categories.

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a “pristine” area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program should be tailored to the particular local source water protection area. A community with a fully developed source water protection program will incorporate many strategies. For the City of Kamiah, source water protection activities should focus on environmental education with the community, recreational users and businesses that operate within the vicinity of the delineation. Most of the delineated areas are outside the direct jurisdiction of Kamiah. Due to the short time involved with the movement of surface water in Clearwater River, source water protection activities should be aimed at spill response and short-term management strategies with an emphasis on dealing with long-term future impacts from these same sources. In order to deal with potential contaminant spills into the Clearwater River, Emergency Response Team efforts should be coordinated with the Transportation Department, Idaho State Police, upstream communities, the Idaho Department of Lands, the U.S. Forest Service, and other federal, state and local agencies with lands and jurisdiction within the delineated source water area. Activities should focus on implementation of practices aimed at reducing the potential threat of serious contamination of the City’s drinking water should a contaminant spill occur along Highway 12. At a minimum, installation of an intake infiltration gallery for the current intake system could reduce the threat of serious contamination due to contaminant spills into the Clearwater River.

While the surface water sources possesses adequate quality and yield, limitations and vulnerability related to the construction of the intakes should be reviewed. An investigation of the feasibility of a shift to potential ground water sources to augment or replace the current surface water system should be considered.

Assistance

Public water suppliers and others may call the following DEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the DEQ office for preliminary review and comments.

Lewiston Regional DEQ Office	(208) 799-4370
State DEQ Office	(208) 373-0502

Website: http://www2.state.id.us/deq

POTENTIAL CONTAMINANT INVENTORY

LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with above-ground storage tanks

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of storm water runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (DEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by DEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

References Cited

Idaho Department of Agriculture, 1998. Unpublished Data.

EPA (U.S. Environmental Protection Agency), 1997, State Methods for Delineating Source Water Protection Areas for Surface Water Supplied Sources of Drinking Water, EPA 816-R-97-008, 40p.

U.S. Government Printing Office, 1995, Code of Federal Regulations, 40 CFR 112, Appendix C-III, Calculation of the Planning Distance

Idaho DEQ, Nov., 2000, State of Idaho, Information Management System (DWIMS).

Attachment A

City of Kamiah
Susceptibility Analysis
Worksheet

The final scores for the susceptibility analysis were determined from the addition of the Potential Contaminant Source/Land Use Score and Source Construction Score.

Final Susceptibility Scoring:

0 - 7 Low Susceptibility

8 - 15 Moderate Susceptibility

> 16 High Susceptibility

Surface Water Susceptibility Report **Public Water System Name : KAMIAH CITY OF** **Source: CLEARWATER R**

Public Water System Number 2310003 2/9/01

1. System Construction		SCORE
Intake structure properly constructed	NO	1
Infiltration gallery or well under the direct influence of Surface Water	NO	2
	Total System Construction Score	3

2. Potential Contaminant Source / Land Use		IOC Score	VOC Score	SOC Score	Microbial Score
Predominant land use type (land use or cover)	IRRIGATED PASTURE OR DRYLAND AGRICULTURE	1	1	1	1
Farm chemical use high	NO	0	0	0	
Significant contaminant sources *	YES	Highway 12 is adjacent to the Clearwater River and is a major route for transport of a variety of potential contaminants including hazardous materials			
Sources of class II or III contaminants or microbials	present within the 500' of the intake and the	1	1	1	1
Agricultural lands within 500 feet	NO	0	0	0	0
Three or more contaminant sources	YES	1	1	1	1
Sources of turbidity in the watershed	YES	1	1	1	1
	Total Potential Contaminant Source / Land Use Score	5	5	5	5
3. Final Susceptibility Source Score		8	8	8	8
4. Final Source Ranking		Moderate	Moderate	Moderate	Moderate

*** Special consideration due to significant contaminant sources**
Source is considered High Susceptibility